

Amendment dated February 13, 2009

After Final Office Action of November 14, 2008

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently amended) A method for transferring control between a first network interface controller and at least a second network interface controller in a multiple network interface device, the method comprising:

after the first network interface controller sends an identifier associated with a memory location in the multiple network interface device to a second device and the identifier and an associated data field are subsequently received by the second network interface controller in the multiple network interface device from the second device, receiving ~~a message from the second network interface controller in the multiple network interface device, by a program component of the multiple network interface device, the message indicating the reception of~~ the identifier associated with the memory location in the multiple network interface device and the associated data field from the second device, wherein the second network interface controller has no knowledge of the identifier and the associated data field, and wherein the first network interface controller and the second network interface controller operate under a ~~remote direct memory access~~ Remote Direct Memory Access (RDMA) protocol;

~~passing the identifier to the program component;~~

querying the first network interface controller to supply the program component with a list of valid identifiers generated by the first network interface controller, wherein each identifier from the list of valid identifiers is [[and]] associated with a location in a memory locations in of the multiple network interface device memory;

identifying determining whether, by the program component, that the first network interface controller generated the identifier, wherein when the first network controller generated the identifier the list of valid identifiers comprises the identifier;

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when it is determined that the first network interface controller generated the identifier,
and transmitting the memory location associated with the identifier to the second network interface controller, wherein the second network interface controller subsequently transmits the associated data field to the memory location; and

when the identifier is not found among the list of valid identifiers, invalidating the identifier and discarding the associated data field.

2. (Currently amended) The method of claim 1, wherein further comprising
invalidating the identifier is invalidated under control of a bit field added to the identifier and the associated data field received from the second device.

3. (Canceled)

4. (Currently amended) The method of claim 1, wherein the memory location is
~~random access memory~~ Random Access Memory.

5. (Currently amended) The method of claim 1, wherein the program component is a computer operating system.

6. (Canceled)

7. (Currently amended) The method of claim 1, wherein the first network interface controller and the second network interface controller operate under the RDMA protocol over TCP/IP protocol.

8. (Currently amended) A method for transferring control between a first network interface controller and at least a second network interface controller in a host computer including the first network interface controller and the second network interface controller, the method comprising:

receiving an identifier and an associated data field from a remote computer by the ~~at least a~~ second network interface controller, the identifier generated by the first network interface

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controller and associated with a memory location in the host computer, wherein the second network interface controller has no knowledge of the identifier and the associated data field, and wherein the first network interface controller and the second network interface controller operate under a ~~remote direct memory access~~ Remote Direct Memory Access (RDMA) protocol;

~~sending passing the identifier associated with the memory location a message to a program component of the host computer indicating the reception of the identifier[[],]];~~

~~querying, by the program component, queries the first network interface controller for a list of valid identifiers generated by the first network interface controller, wherein each identifier from the list of valid identifiers is and associated with a memory location locations in a memory of the host computer;~~

~~passing the identifier received from the remote computer to the program component;~~

~~searching the list of valid identifiers for the identifier;~~

~~when the list of valid identifiers includes the identifier received from the remote computer, receiving, by the second network interface controller, the [[a]] memory location associated with the identifier, wherein the second network interface controller transmits the associated data field to the memory location; and~~

~~when the list of valid identifiers does not include the identifier received from the remote computer, invalidating the identifier received from the remote computer and discarding the associated data field.~~

9. (Currently amended) The method of claim 8, wherein the identifier is invalidated under control of a bit field added to the identifier and [[an]] ~~the~~ associated data field received from the remote computer.

10. (Canceled)

11. (Currently amended) The method of claim 8, wherein the memory location is ~~random access memory~~ Random Access Memory.

12. (Currently amended) The method of claim 8, wherein the program component is a computer operating system.

13. (Canceled)

14. (Currently amended) The method of claim 8 wherein the first network interface controller and the second network interface controller operate under a ~~remote direct memory access (RDMA)~~ the RDMA protocol over TCP/IP protocol.

15. (Currently amended) A computer readable medium having stored therein instructions for performing acts for transferring control between a first network interface controller and at least a second network interface controller in a multiple network interface device, the acts comprising:

after the first network interface controller sends an identifier associated with a memory location in the multiple network interface device to a second device and the identifier and an associated data field are subsequently received by the second network interface controller in the multiple network interface device from the second device,

receiving a ~~message from the second network interface controller,~~ by a program component in the multiple network interface device, ~~the message indicating the reception of~~ the identifier associated with the memory location in the multiple network interface device and the associated data field from the second device, wherein the second network interface controller has no knowledge of the identifier and the associated data field, and wherein the first network interface controller and the second network interface controller operate under a ~~remote direct memory access~~ Remote Direct Memory Access (RDMA) protocol;

~~passing the identifier to the program component;~~

querying the first network interface controller to supply the program component with a list of valid identifiers generated by the first network interface controller, wherein each identifier from the list of valid identifiers is [[and]] associated with a memory location locations in a memory of the multiple network interface device memory;

identifying determining whether, by the program component, that the first network interface controller generated the identifier, wherein when the first network controller generated the identifier the list of valid identifiers comprises the identifier;

when it is determined that the first network interface controller generated the identifier, and transmitting the memory location associated with the identifier to the second network interface controller, wherein the second network interface controller subsequently transmits the associated data field to the memory location; and

when the identifier is not found among the list of valid identifiers, invalidating the identifier and discarding the associated data field.

16. (Currently amended) The computer readable medium of claim 15, wherein the identifier is invalidated under control of a bit field added to the identifier and the associated data field received from the second device.

17. (Canceled)

18. (Currently amended) The computer readable medium of claim 15, wherein the ~~memory location is random access memory~~ comprises Random Access Memory.

19. (Currently amended) The computer readable medium of claim 15, wherein the program component is a computer operating system.

20. (Canceled)

21. (Currently amended) The computer readable medium of claim 15, wherein the first network interface controller and the second network interface controller operate under the RDMA_protocol over TCP/IP protocol.

22. (Currently amended) A computer readable medium having stored therein instructions for performing acts for transferring control between a first network interface controller and at least a second network interface controller in a host computer including the first network interface controller and the second network interface controller, the method acts comprising:

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receiving an identifier and an associated data field from a remote computer by the at least a second network interface controller, the identifier generated by the first network interface controller and associated with a memory location in the host computer, wherein the second network interface controller has no knowledge of the identifier and the associated data field, and wherein the first network interface controller and the second network interface controller operate under a ~~remote direct memory access~~ Remote Direct Memory Access (RDMA) protocol;

sending a message passing the identifier associated with the memory location to a program component of the host computer indicating the reception of the identifier;

querying, by the program component, queries the first network interface controller for a list of valid identifiers generated by the first network interface controller, wherein each identifier from the list of valid identifiers is and associated with a memory location -locations in a memory of the host computer;

passing the identifier received from the remote computer to the program component;

searching the list of valid identifiers for the identifier;

when the list of valid identifiers includes the identifier received from the remote computer, receiving, by the second network interface controller, the [[a]] memory location associated with the identifier, wherein the second network interface controller transmits the associated data field to the memory location; and

when the list of valid identifiers does not include the identifier received from the remote computer, invalidating the identifier received from the remote computer and discarding the associated data field.

23. (Currently amended) The computer readable medium of claim 22, wherein the identifier is invalidated under control of a bit field added to the identifier and the associated data field received from the ~~second device~~ remote computer.

24. (Canceled)

25. (Currently amended) The computer readable medium of claim 22, wherein the ~~memory location is random access memory~~ comprises Random Access Memory.

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26. (Currently amended) The computer readable medium of claim 22, wherein the program component is a computer operating system.

27. (Canceled)

28. (Currently amended) The computer readable medium of claim 22, wherein the first network interface controller and the second network interface controller operate under the RDMA protocol over TCP/IP protocol.